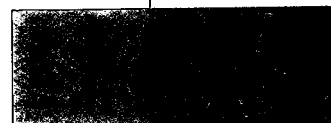


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IMAGERY
ANALYSIS



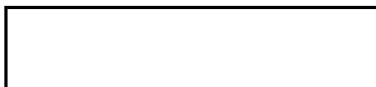
STAFF

PIR

PHOTOGRAPHIC INTELLIGENCE REPORT

VITAL RECORDS COPY

STATUS OF NORTH VIETNAMESE RAILROADS



DECLASS REVIEW by NIMA/DOD

REPORT NO. 36
CIA/PIR 75III

DATE APRIL 1967

GROUP 1
Excluded from automatic
downgrading and declassification

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WARNING

This document contains information affecting the national defense of the United States, within the meaning of Title 18, sections 793 and 794, of the U.S. Code, as amended. Its transmission or revelation of its contents to or receipt by an unauthorized person is prohibited by law.

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Approved For Release 2003/03/28 : CIA-RDP78T05161A001300010034-8

DDI IMAGERY ANALYSIS STAFF

PIR 75111

PREFACE

This report summarizes significant items of photo intelligence relating to the North Vietnamese railroad system which has been developed from available photography (received by the CIA Imagery Analysis Staff) during the period indicated on the cover. This report is intended to provide a comprehensive view of the railroad system and does not necessarily reflect the most recent status changes as reported by pilots' reports or field photo intelligence cables.

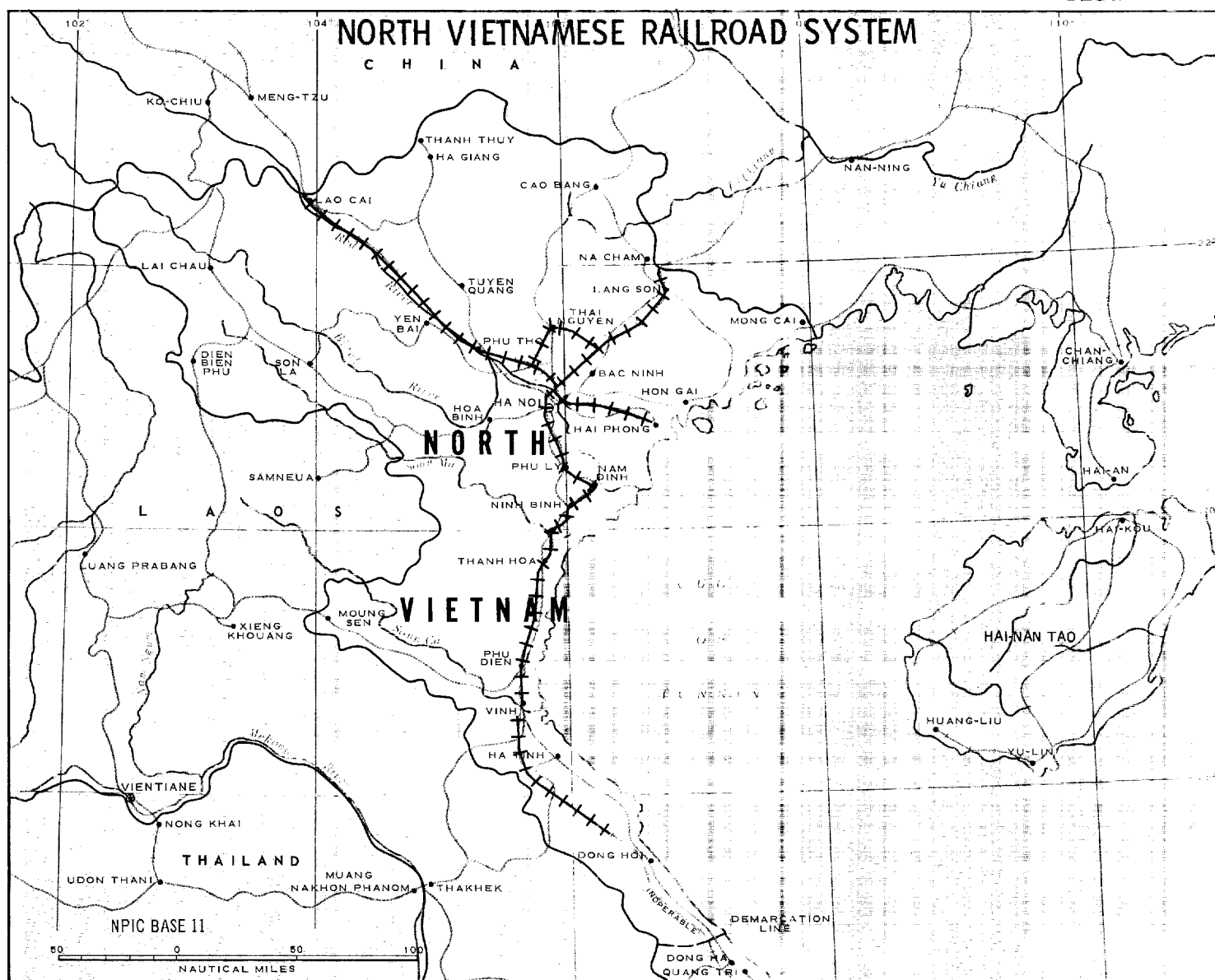
The railroad system has been divided into 5 major lines: the Hanoi/Lao Cai Line, the Hanoi/Dong Dang Line, the Hanoi/Haiphong Line, the Hanoi/Dong Hoi Line and the Thai Nguyen Line (Figure I). Annotated maps and photos are used to show the status of each line.

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FIGURE 1



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DDI IMAGERY ANALYSIS STAFF

PIR 75111

SUMMARY

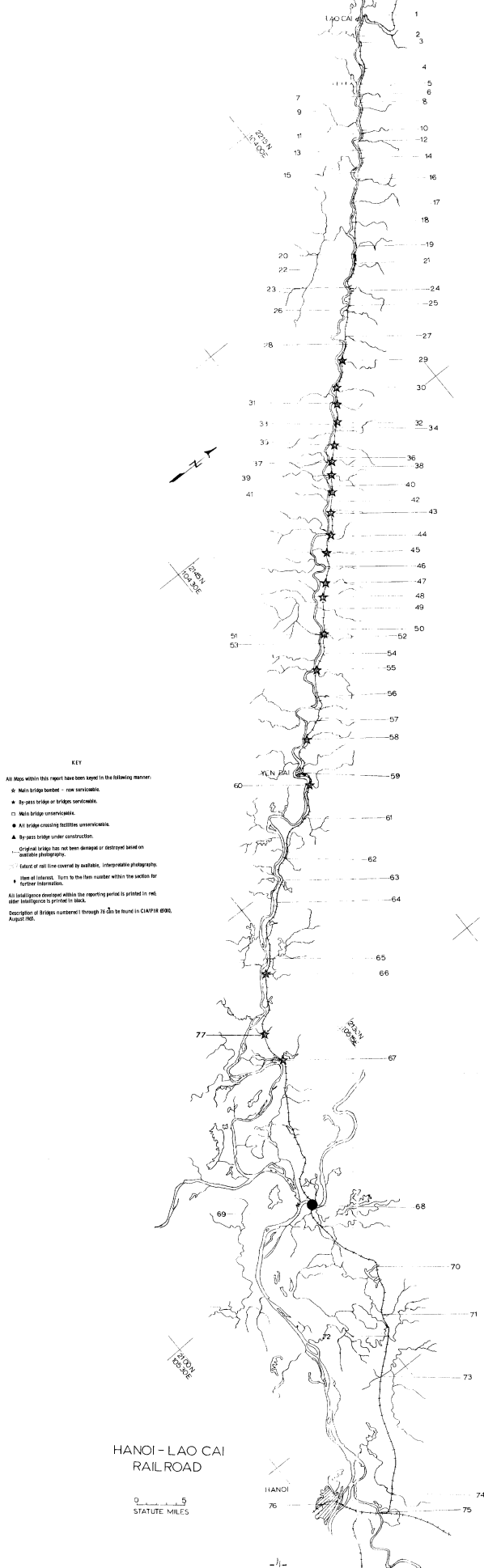
One bridge interdiction was noted on the Hanoi/Dong Hoi Rail Line; the southern portion of this line continues to be extended southward toward Dong Hoi. Those portions of the Hanoi/Haiphong and Thai Nguyen Rail Lines covered by interpretable photography were open to through traffic.

CONTENTS

Hanoi/Lao Cai Rail Line	Page 4
Hanoi/Dong Dang Rail Line	6
Hanoi/Dong Hoi Rail Line	8
Hanoi/Haiphong Rail Line	17
Thai Nguyen Rail Line	20

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PIR 75112
FIGURE 2 25X1

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DDI IMAGERY ANALYSIS STAFF

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STATUS OF PREVIOUSLY DAMAGED/DESTROYED BRIDGES
HANOI/LAO CAI RAIL LINE

Bridge Number and Name	Date last observed	Status
30 Lang Thip Railroad Bridge over Ngoi Thip [REDACTED]	[REDACTED]	S
32 Lang Kay Railroad Bridge NW over Ngoi Key [REDACTED]		S
35 Lang Kay Railroad Bridge over Ngoi Chuc [REDACTED]		S
37 Lang Kay Railroad Bridge S over Nam Linh [REDACTED]		S
39 Lang Khay Railroad Bridge over Ngoi Kay [REDACTED]		S
41 Khe Se Railroad Bridge S over stream [REDACTED]		S
43 Trai Hut Railroad Bridge NW over Ngoi Cho [REDACTED]		S
44 Trai Hut Railroad Bridge over Nam Lam [REDACTED]		S
45 Som Dong Dep Railroad Bridge over Nam Muoi [REDACTED]		S
47 Lang Quach Ngoai Railroad Bridge N over Ngoi Vai [REDACTED]		S
48 Lang Quach Ngoai Railroad Bridge over Ngoi Quach [REDACTED]		S
51 Pho Chang Railroad Bridge over Ngoi Trang [REDACTED]		S
55 Pho Hop Railroad Bridge over Ngoi Hop [REDACTED]	S	
67 Phu Tho Railroad Bridge E over stream [REDACTED]	S	

25X1

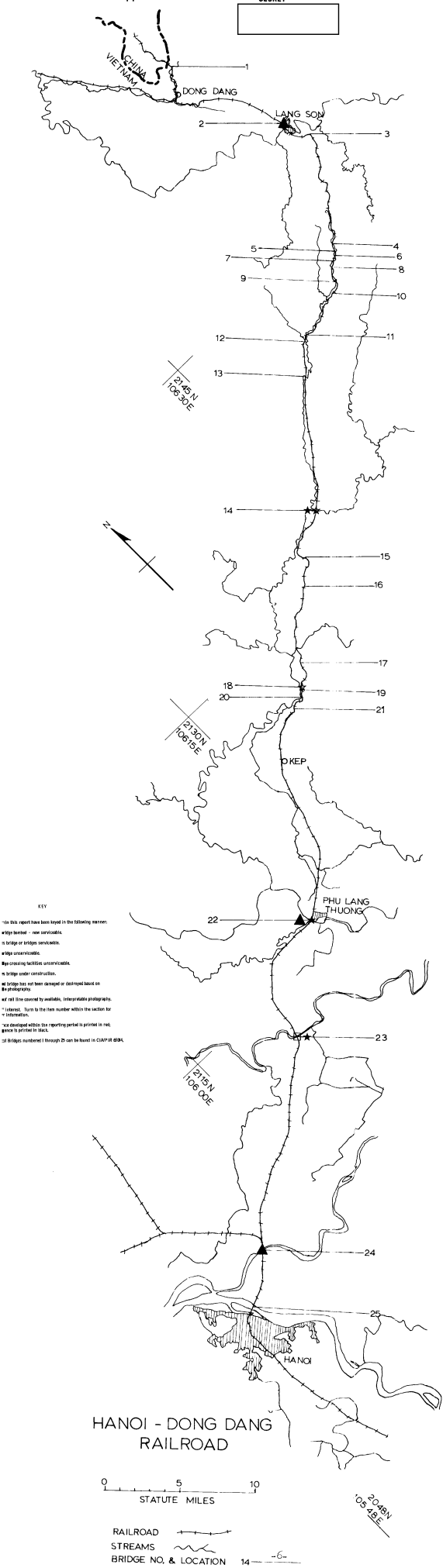
* All data is compiled from photography dated [REDACTED] or thereafter.
Symbols: S - serviceable, U - unserviceable

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PIR 75111
FIGURE 3

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DDI IMAGERY ANALYSIS STAFF

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STATUS OF PREVIOUSLY DAMAGED/DESTROYED BRIDGES
HANOI/DONG DANG RAIL LINE

	<u>Bridge Number and Name</u>	<u>Date last observed</u>	<u>Status</u>
14	Cao Nung Railroad Bridge over Song Hoa [REDACTED]	[REDACTED]	S
14	Cao Nung Railroad Bridge E over Song Hoa [REDACTED]		S
22	Bac Giang Railroad and Highway Bridge over Song Thuong [REDACTED]		S
23	Dap Cau Railroad and Highway Bridge over Song Cau [REDACTED]		U
23	Dap Cau Railroad Bridge over Song Cau [REDACTED]		S

25X1

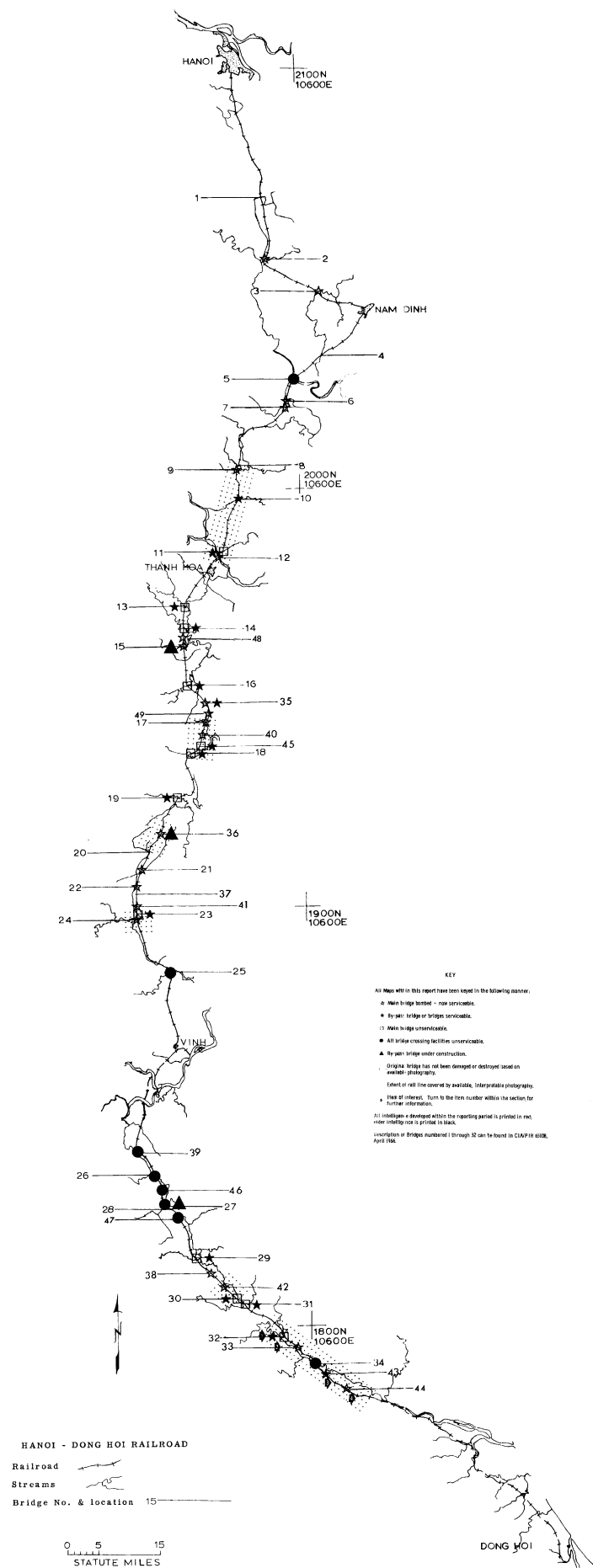
* All data is compiled from photography dated [REDACTED] or thereafter.
Symbols: S - serviceable, U - unserviceable

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FIGURE 4

-8-

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DDI IMAGERY ANALYSIS STAFF

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STATUS OF PREVIOUSLY DAMAGED/DESTROYED BRIDGES
HANOI/DONG HOI RAIL LINE

	<u>Bridge Number and Name</u>	<u>Date last observed</u>	<u>Status</u>
25X1	3 Cao Duong Railroad and Highway Bridge over canal ()		S
25X1	5 Ninh Binh Railroad and Highway Bridge over Song Day ()		U
25X1	5 Ninh Binh Railroad Bridge over Song Day ()		U
	5 Ninh Binh Railroad Pontoon Bridge		U
25X1	6 Ha Thon Railroad and Highway Bridge over Song Vac ()		S
25X1	7 Ly Nhan Railroad and Highway Bridge over stream ()		S
25X1	9 Yen Xa Railroad and Highway Bridge over stream ()		S
25X1	10 Dong Phong Thuong Railroad and Highway Bridge over Song Len ()		U
25X1	10 Dong Phong Thuong Railroad Bridge S over Song Len ()		U
25X1	10 Dong Phong Thuong E Railroad By-Pass Bridge ()		S
25X1	11 Phuong Dinh Railroad and Highway Bridge over Lach Truong ()		U
25X1	11 Phuong Dinh Railroad Bridge over Lach Truong ()		S
25X1	12 Thanh Hoa Railroad and Highway Bridge over Song Ma ()		S
25X1	13 Thien Linh Dong Railroad Bridge over Hoang Giang ()	U	

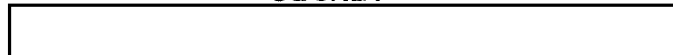
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DDI IMAGERY ANALYSIS STAFF

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<u>Bridge Number and Name</u>	<u>Date last observed</u>	<u>Status</u>
-------------------------------	---------------------------	---------------

13	Thien Linh Dong Railroad Bridge SW over River	S
----	---	---

25X1

14	Thinh Lac Railroad Bridge over stream	U
----	---------------------------------------	---

U

14	Thinh Lac Railroad Bridge SSW over stream	S
----	---	---

S

15	Truong Quang Tien Railroad Bridge over Song Yen Tr	S
----	--	---

S

15	Truong Quang Tien Railroad Bridge E over River	U
----	--	---

U

16	Thi Long Railroad Bridge over Suoi Cay Gang	U
----	---	---

U

16	Thi Long Railroad Bridge SW over Suoi Cay Gang	S
----	--	---

S

17	Phu Quat Railroad Bridge over stream	S
----	--------------------------------------	---

S

18	Dia Thuy Railroad Bridge SW over Khe Dua	U
----	--	---

U

18	Dia Thuy Railroad Bridge NW over Khe Dua	S
----	--	---

S

19	Qui Vinh Railroad Bridge No. 1 over Song Hoang Mai	U
----	--	---

U

19	Qui Vinh Railroad Bridge No. 2 over Song Hoang Mai	S
----	--	---

S

19	Qui Vinh Railroad Bridge No. 3 over Song Hoang Mai	U
----	--	---

U

19	Qui Vinh Railroad Bridge No. 4 over Song Hoang Mai	S
----	--	---

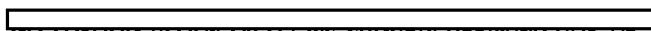
S

21	Long Ngoc Railroad and Highway Bridge unknown barrier	S
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S

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DDI IMAGERY ANALYSIS STAFF

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	<u>Bridge Number and Name</u>	<u>Date last observed</u>	<u>Status</u>
22	Dong Khe Railroad Bridge over stream [REDACTED]	[REDACTED]	S
23	Dien Chau Railroad Bridge over Song Bang [REDACTED]		U
23	Dien Chau Railroad Bridge E over Song Bang [REDACTED]		S
24	Da Phuc Railroad Bridge over Intermittent Waterway [REDACTED]		S
25	Tam Da Railroad and Highway Bridge over Song Cua Lo [REDACTED]		U
25	Tam Da Railroad By-Pass Bridge		U
26	Trai Hoi Railroad and Highway Bridge over Ngan Sau [REDACTED]		U
27	Xom Hoai Railroad and Highway Bridge over Rao No [REDACTED]		U
30	La Khe Thon Railroad Bridge over Song Tien [REDACTED]		U
30	La Khe Thon Highway Bridge over Song Tien [REDACTED]		S
31	Bai Duc Thon Railroad Bridge over Khe Ba Giang [REDACTED]		U
31	Bai Duc Thon Railroad Bridge S over Khe Ba Giang [REDACTED]		S
32	Xom Khe Railroad Bridge over Khe Net [REDACTED]		U
32	Xom Khe Railroad Bridge By-Pass over Khe Net		S
33	Kim Lu Xa Railroad Bridge over Khe Danh [REDACTED]		S
35	Thi Long Railroad Bridge SE over stream [REDACTED]		S

25X1

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[REDACTED]

25X1

DDI IMAGERY ANALYSIS STAFF

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	<u>Bridge Number and Name</u>	<u>Date last observed</u>	<u>Status</u>
	35 Thi Long Railroad Bridge S By-Pass	[REDACTED]	S
25X1	36 Tho Trang Railroad Bridge over stream [REDACTED]		S
25X1	39 Quang Te Railroad Bridge over Khe Hac Giang [REDACTED]		U
25X1	40 Qui My Railroad Bridge over stream [REDACTED]		S
	41 Tu My Railroad Bridge		S
	42 Trai Tran Xom Railroad Bridge		S
25X1	43 Dong Ca Thon Railroad and Highway Bridge over Cai Khe [REDACTED]		S
25X1	44 Kieu Moc Phuong Railroad Bridge W [REDACTED]		S
25X1	45 Phu Cu Railroad Bridge N over stream [REDACTED]		U
	45 Phu Cu Railroad By-Pass Bridge		S
25X1	48 Sai Thon Railroad Bridge N over stream [REDACTED]	S	
25X1	49 Nap Bang Railroad Bridge over stream [REDACTED]	S	

* All data is compiled from photography dated [REDACTED] or thereafter.
 Symbols: S - serviceable, U - unserviceable

25X1

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[REDACTED]

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25X1

DDI IMAGERY ANALYSIS STAFF

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ITEM OF INTEREST NO. 1: Hanoi/Dong Hoi Rail Line

NAME : Xom Khe RR. By-Pass Bridge

BE : NA

COORDINATES : 17 58N - 105 56E, WF987978

PHOTO REFERENCE : [REDACTED]

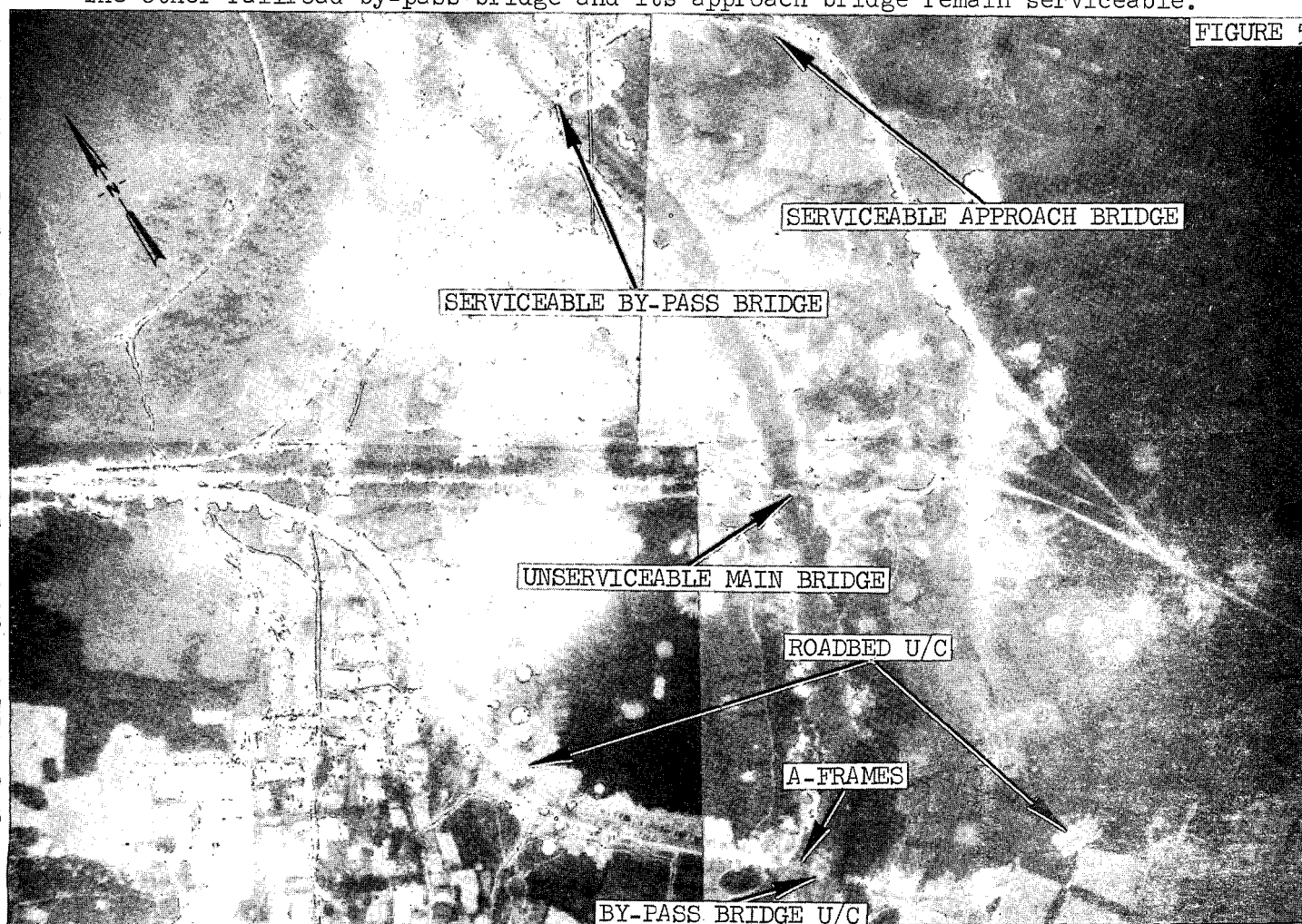
MAP REFERENCE : JOG (A) 1501, NE 48-11

25X1

25X1

A second railroad by-pass bridge is being constructed around the unserviceable main bridge [REDACTED] at Xom Khe. Construction of the approaches has begun and several A-frame support towers are in place. The other railroad by-pass bridge and its approach bridge remain serviceable.

FIGURE 5



-13-

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DDI IMAGERY ANALYSIS STAFF

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ITEM OF INTEREST NO. 2: Hanoi/Dong Hoi Rail Line

NAME : Kim Lu Xa RR. By-Pass Bridge

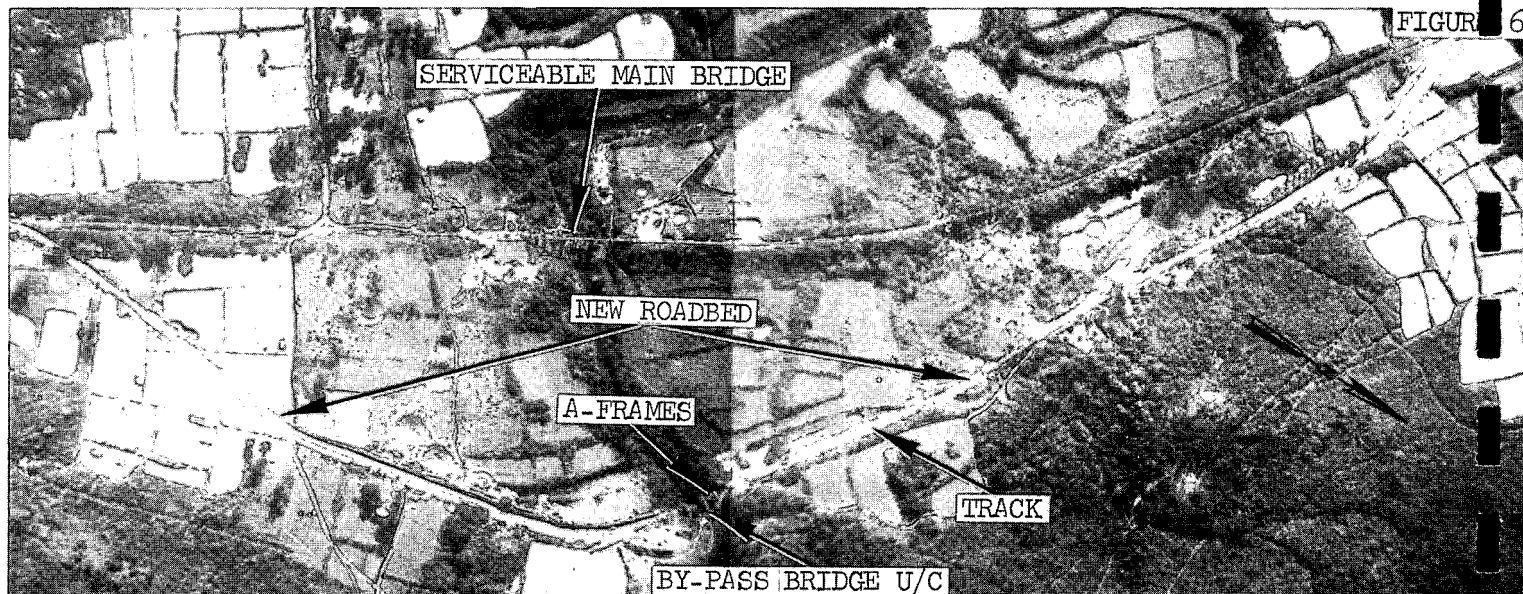
BE : NA

COORDINATES : 17 57N - 105 58E, XE021848

PHOTO REFERENCE :

MAP REFERENCE : JOG (A) 1501, NE 48-11

A probable 5-span, deck-beam railroad by-pass bridge is under construction east of the serviceable Kim Lu Xa Railroad Bridge. The A-frame supports are in place and track has been laid on part of the by-pass roadbed.



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[REDACTED]

DDI IMAGERY ANALYSIS STAFF

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25X1

ITEM OF INTEREST NO. 3: Hanoi/Dong Hoi Rail Line

NAME : Rolling Stock

BE : NA

COORDINATES : 17 52N - 106 02E, XE108758

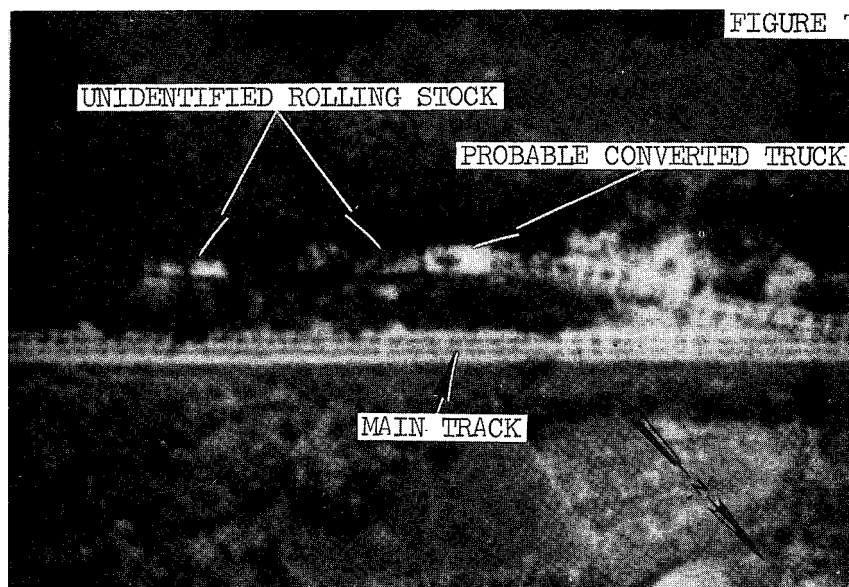
PHOTO REFERENCE :

[REDACTED]

MAP REFERENCE : JOG (A) 1501, NE 48-11

25X1

Four pieces of unidentified railroad equipment and one probable converted truck were noted on a short siding at UTM XE108758. This is the southernmost observation of rolling stock on this rail line.

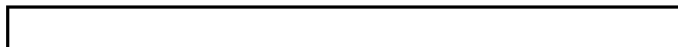


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[REDACTED]

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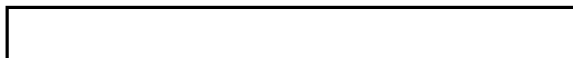
ITEM OF INTEREST NO. 4: Hanoi/Dong Hoi Rail Line

NAME : Rail Head

BE : NA

COORDINATES : 17 49N - 106 07E, XE191712

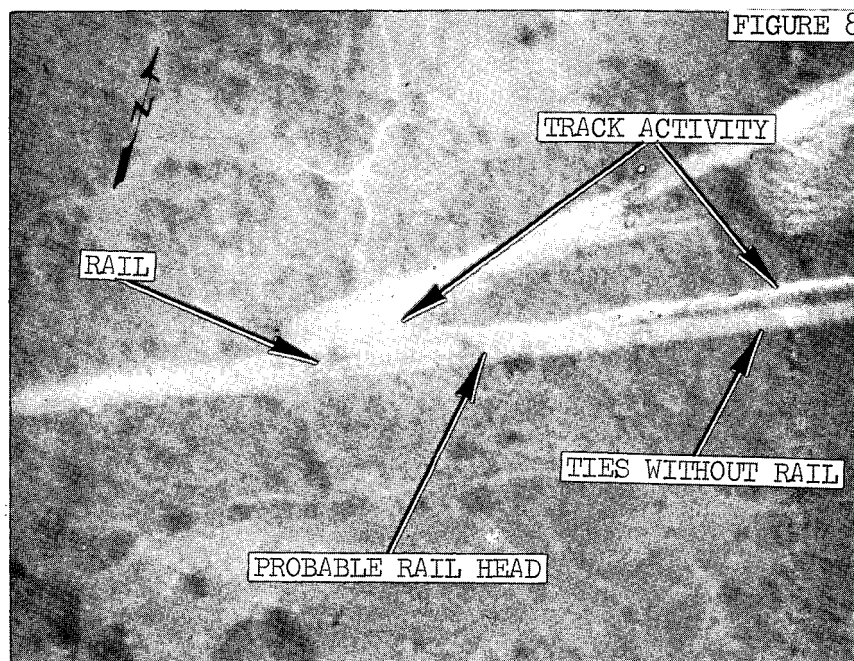
PHOTO REFERENCE :



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MAP REFERENCE : JOG (A) 1501, NE 48-11

Track has been extended an additional 0.8 nm toward Dong Hoi from its previously observed terminus (see Report No. 33). Ties without rail continue toward the east for an additional 0.1 nm, indicating a continuing effort to extend this section of the Hanoi/Dong Hoi Rail Line.



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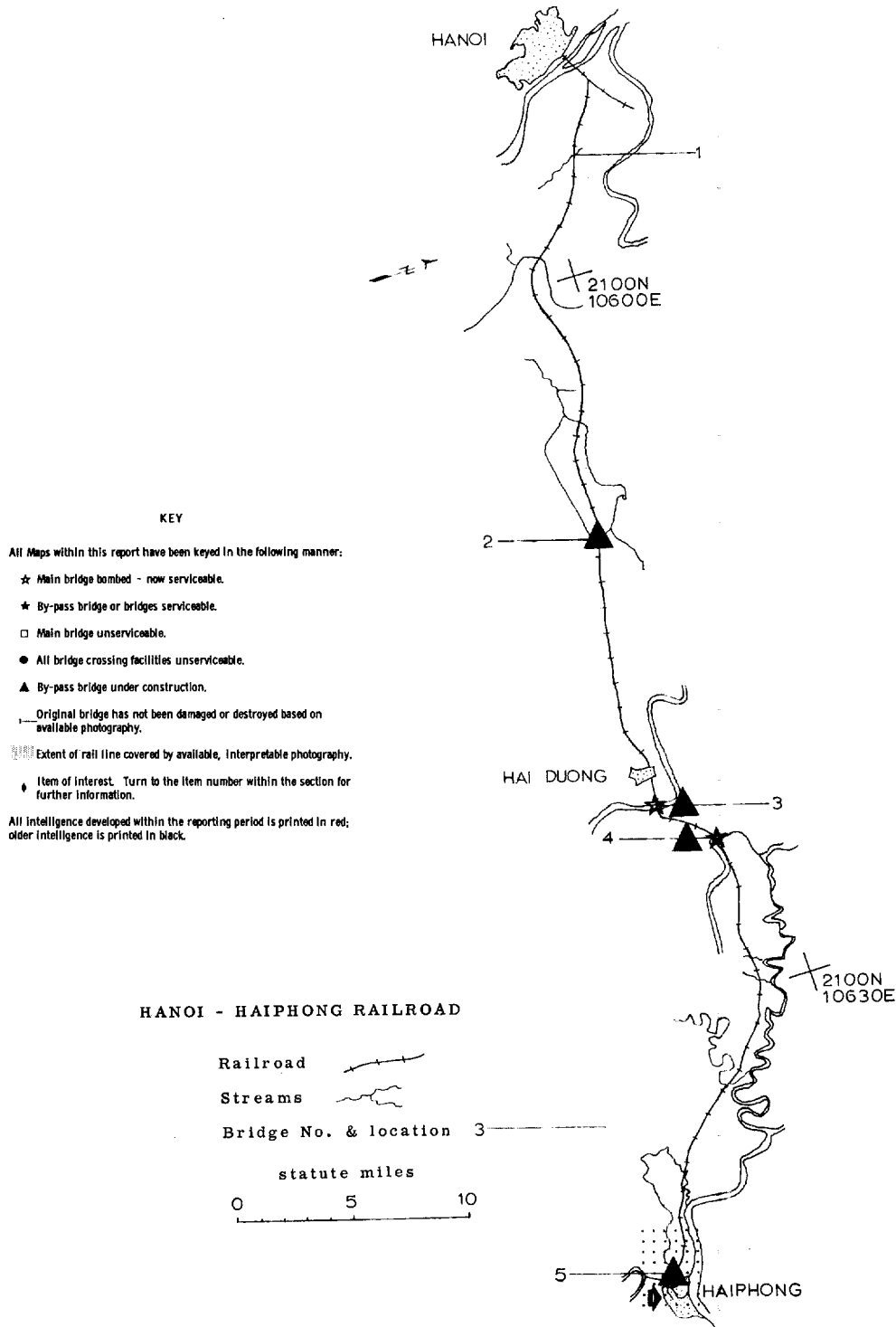


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PIR 75111
FIGURE 9

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-17-

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DDI IMAGERY ANALYSIS STAFF

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ITEM OF INTEREST NO. 1: Hanoi/Haiphong Rail Line

NAME : Camouflaged Tank Cars

BE : NA

COORDINATES : 20 15N - 106 41E, XJ760068

PHOTO REFERENCE :



MAP REFERENCE : JOG (A) 1501, NF 48-16

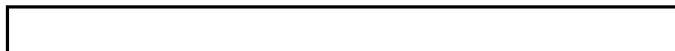
Ten camouflaged tank cars and 1 probable camouflaged tank car are noted in the Haiphong Railroad Classification Yard on Tank cars were first observed being camouflaged at this location on (see Report No. 34).

Railroad equipment in the yard at the time of photography consists of the following (all not illustrated). Figures are approximate:

RAILROAD EQUIPMENT

<u>TYPE</u>	<u>NUMBER</u>
Locomotives	2
Passenger Cars	2
Box Cars	18
Gondola Cars	55
Tank Cars	49
Flat Cars	25
Well-type Flat Cars	3
Unidentified Equipment	11
TOTAL	165

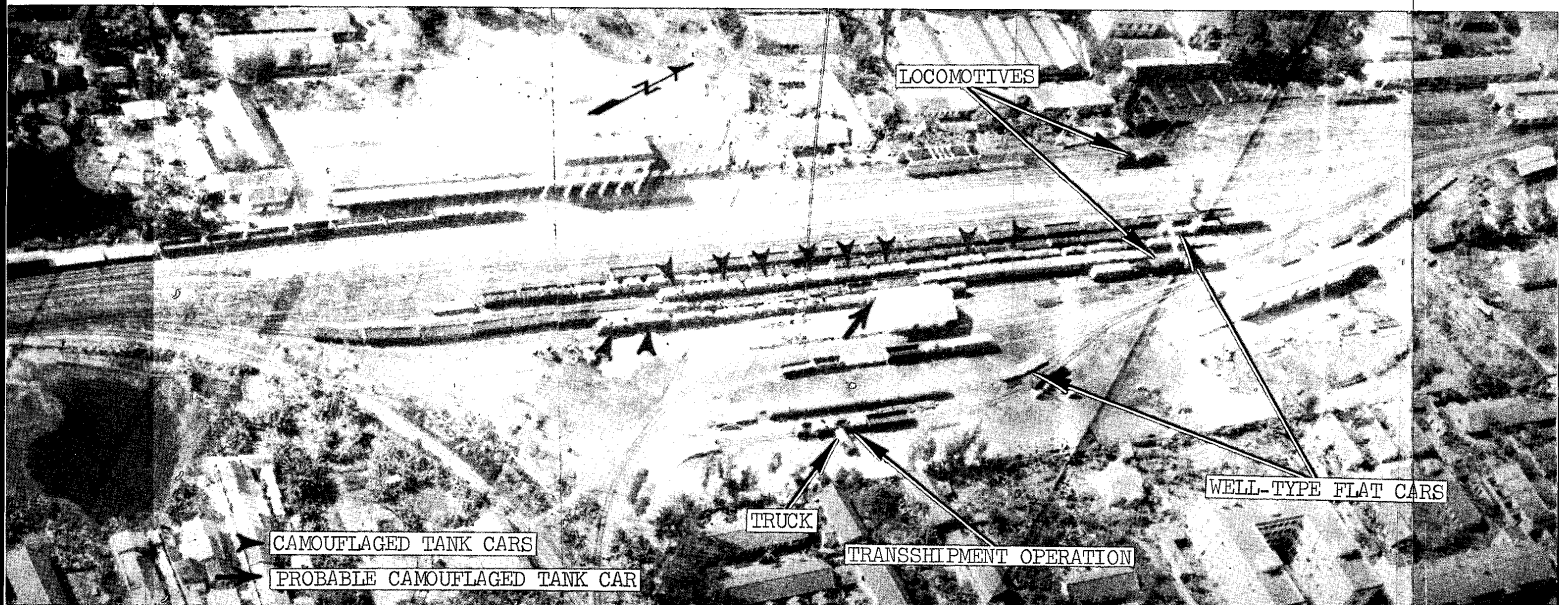
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PIR 75111
FIGURE 10



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PIR 75111
FIGURE 11

KEY

All Maps within this report have been keyed in the following manner:

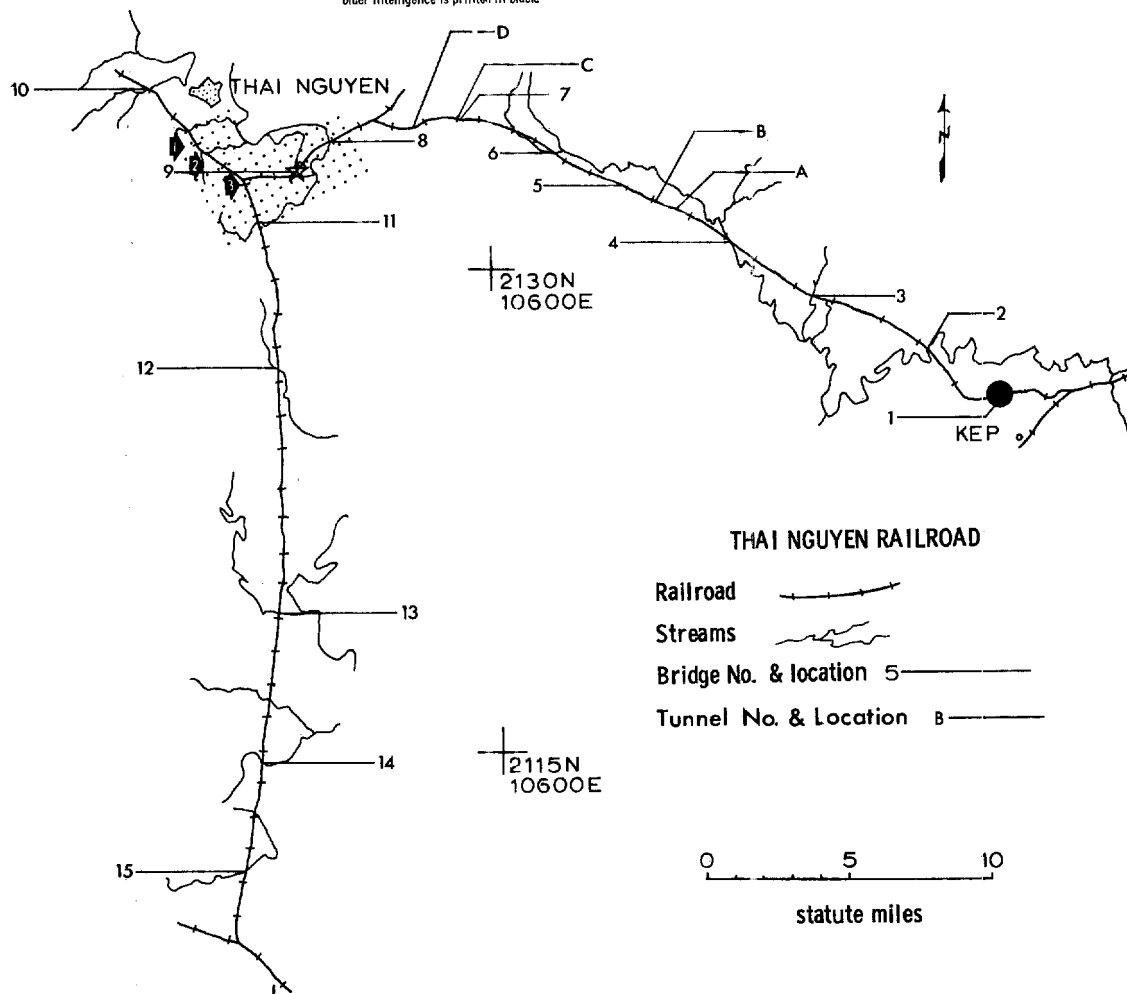
- ☆ Main bridge bombed - now serviceable.
- ★ By-pass bridge or bridges serviceable.
- Main bridge unserviceable.
- All bridge crossing facilities unserviceable.
- ▲ By-pass bridge under construction.

Original bridge has not been damaged or destroyed based on available photography.

Extent of rail line covered by available, interpretable photography.

Item of Interest. Turn to the item number within the section for further information.

All intelligence developed within the reporting period is printed in red; older intelligence is printed in black.



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DDI IMAGERY ANALYSIS STAFF

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STATUS OF PREVIOUSLY DAMAGED/DESTROYED BRIDGES
THAI NGUYEN RAIL LINE

	<u>Bridge Number and Name</u>	<u>Date last observed</u>	<u>Status</u>
25X1	2 Dong Muc Railroad Bridge over Song Thuong [REDACTED]	[REDACTED]	U
25X1	9 Lang Lau Railroad Bridge over Song Cau [REDACTED]	[REDACTED]	S

25X1

* All data is compiled from photography dated [REDACTED] or thereafter.
Symbols: S - serviceable, U - unserviceable

25X1

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25X1

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25X1

DDI IMAGERY ANALYSIS STAFF

PIR 75111

ITEM OF INTEREST NO. 1: Thai Nguyen Rail Line

NAME : Rolling Stock

BE : NA

COORDINATES : 21 33N - 105 50E, WJ875847

PHOTO REFERENCE :

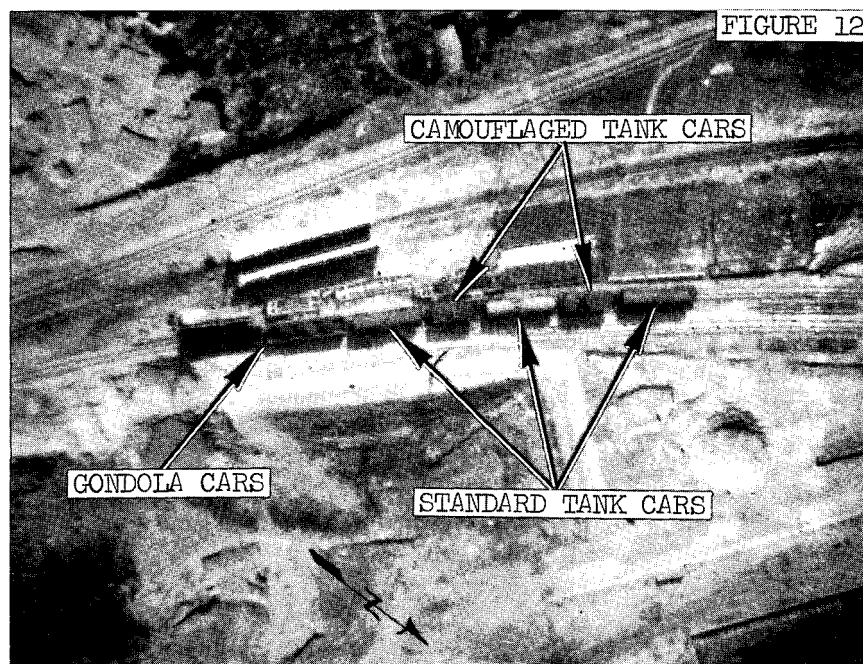
25X1

MAP REFERENCE : JOG (A) 1501, NF 48-11

25X1

Two small camouflaged tank cars similar to those noted in the Haiphong Railroad Classification Yard (see page 19 of this report and Report No. 34) are observed immediately north of the Thai Nguyen Railroad Classification Yards. Also illustrated are three standard tank cars and two gondola cars.

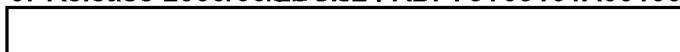
25X1



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DDI IMAGERY ANALYSIS STAFF

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25X1

ITEM OF INTEREST NO. 2: Thai Nguyen Rail Line

NAME : Thai Nguyen Railroad Station, Yards, and Shops

BE

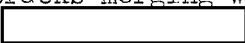
: 

COORDINATES : 21 33N - 105 51E, WJ882842

PHOTO REFERENCE

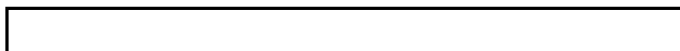
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MAP REFERENCE : JOG (A) 1501, NF 48-11

The Thai Nguyen Railroad Yards have been partially repaired (see Report No. 32) and are serviceable to limited traffic. There are now 3 tracks serviceable through the complete length of the yard, and an additional 2 tracks merging with the yard from the Thai Nguyen Iron and Steel Combine  are also serviceable. The short section of track directly joining the dual gauge track of the rail line and that within the steel combine is serviceable.

A previously reported area of rail storage within the iron and steel combine has been damaged by bombing (Figure 13). Approximately 39 of the 88 pieces of rolling stock observed within the yard are damaged/destroyed.

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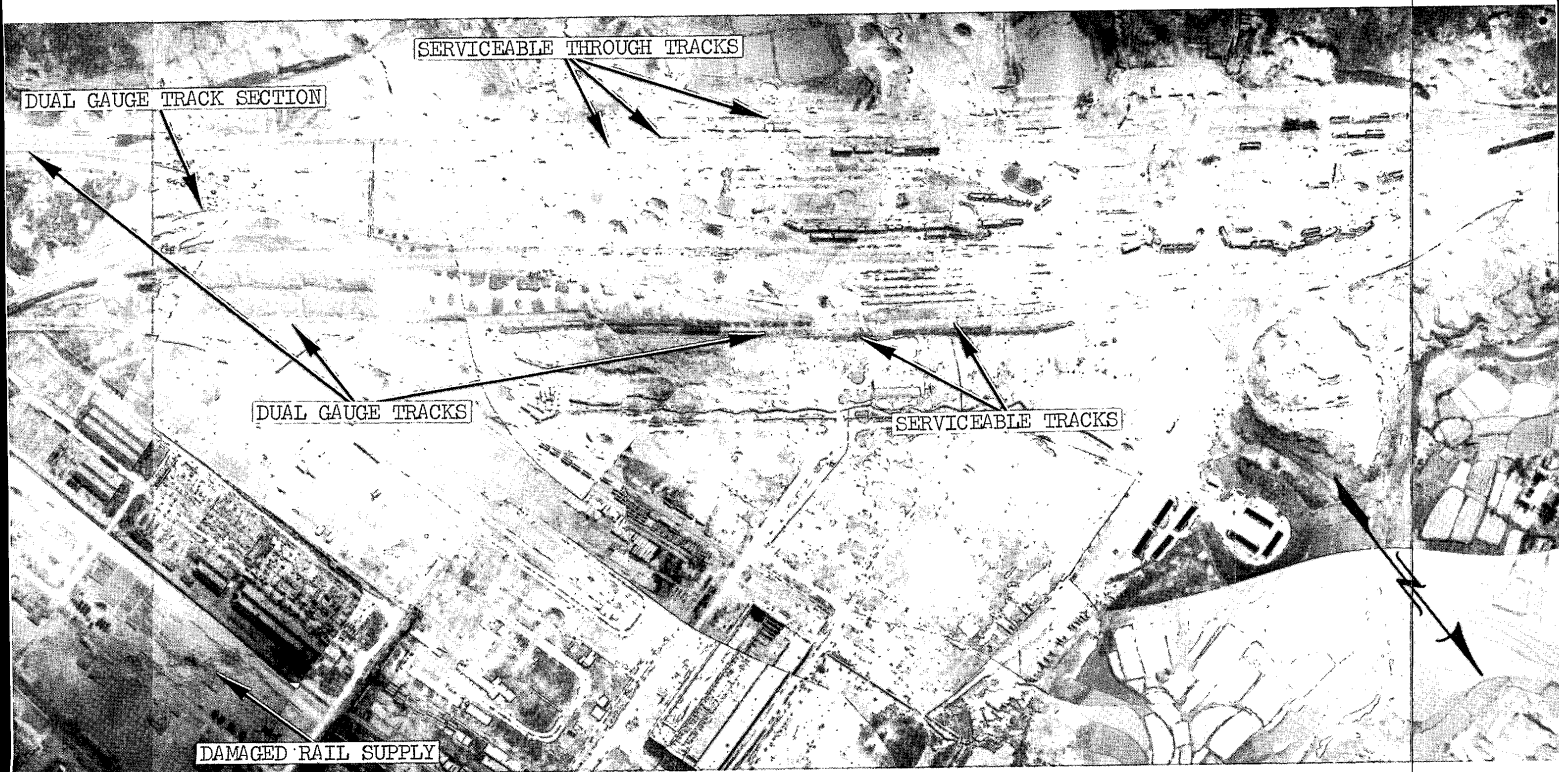


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PIR 75111
FIGURE 13



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25X1

DDI IMAGERY ANALYSIS STAFF

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ITEM OF INTEREST NO. 3: Thai Nguyen Rail Line

NAME : Dual Gauge Switches

BE : NA

COORDINATES : 21 32N - 105 52E, WJ900829

PHOTO REFERENCE

:



25X1

MAP REFERENCE

: JOG (A) 1501, NF 48-11

The rail segment connecting the Kep-Thai Nguyen and Thai Nguyen-Nguyen Khe rail segments, previously noted in Report No. 32, has been completed (Figure 15). The new dual-gauge segment exhibits an interesting set of switches (Figure 14):

Switch No. 1 is a simple shunting switch involving all 3 rails.

Switch No. 2 is actually 2 switches which move the third, inner rail utilized by meter gauge rolling stock only. Its function is to change the position of the third rail so that meter gauge traffic may subsequently merge into another dual gauge track whose third, inner rail is in a different position (Figure 14).

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PIR 75111
FIGURE 14

25X1

SWITCH NO. 1

SWITCH NO. 2

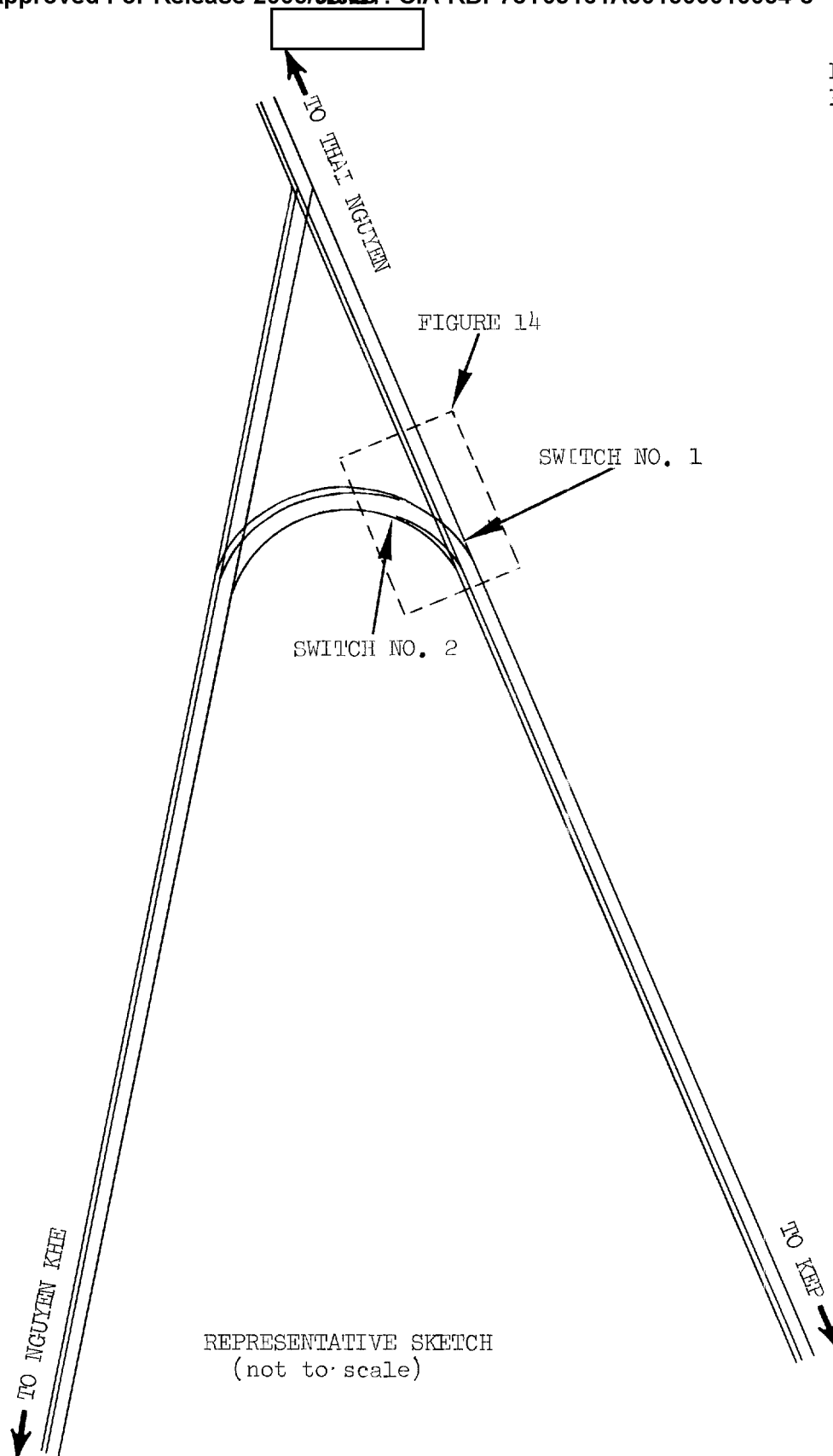
LEADER RAIL FOR METER GAUGE USE ONLY

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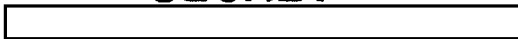
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PIR 75111
FIGURE 15



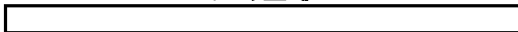
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